



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/602,603

06/25/2003

Ryuji Tsuchiyama

500.42889X00

1471

20457

7590

03/17/2005

ANTONELLI, TERRY, STOUT & KRAUS, LLP  
1300 NORTH SEVENTEENTH STREET  
SUITE 1800  
ARLINGTON, VA 22209-9889

EXAMINER

CHEN, TIANJIE

ART UNIT

PAPER NUMBER

2652

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/602,603

Applicant(s)

TSUCHIYAMA ET AL.

Examiner

Tianjie Chen

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.  
4a) Of the above claim(s) 7 and 8 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1 is/are rejected.  
7) ☒ Claim(s) 2-6 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20030625.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## ***Non-Final Rejection***

### ***Election/Restrictions***

1. Applicant's election with traverse of claims 1-6 in the reply filed on 11/22/2004 is acknowledged. The traversal is on the ground(s) that the combination as claimed does not require the particulars of the subcombination as claimed for patentability. Applicants note that the features of at least claims 1 and 2 of invention 1, related to the subcombination, are substantially found in independent 7. This is not found persuasive because as a group, the features in group I should be completely, not substantially, found in group II.

The requirement is still deemed proper and is therefore made FINAL.

2. This application contains claims 7 and 8 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Anaya-Dufresne et al (US 6,144,528).

Claim 1, Anaya-Dufresne et al shows a magnetic head slider in Fig. 3 having opposite sides 36+36 and a leading edge side 32 on which an air stream induced magnetic disc flows into the slider, trailing edge 34 which the air stream flows from

Art Unit: 2652

the slider, and including a leading pad formed 40 on the leading edge side and serving as an bearing surface, a trailing pad 70 formed on the trailing edge side, and serving as air bearing surface, a pair of side rail 48+48 formed along the opposite sides having rail surfaces 49+49, and a recess surface 80 defined between the leading pad and the trailing pad, and Fig. 3 shows the leading pad having a height which is measured from the recess surface and which is greater than that of the trailing pad.

***Allowable Subject Matter***

4. Claims 2-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

- With regard to claim 2, as the closest reference, Anaya-Dufresne et al (US 6,144,528) shows a magnetic head slider having a leading pad, a trailing pad, and a recess surface, the leading pad having a height which is measured from the recess surface and which is greater than that of the trailing pad, a pair of side rails, the leading pad includes first surface projected from a recess surface, and a second surface which is formed on the leading edge side the first surface and which is lower than first surface, and the trailing pad includes a third surface projected from the recess surface and a fourth surface which is formed on the leading edge side, which is lower than the third surface; **but fails to show that** the second surface of the leading pad being higher than the third trailing pad.

- With regard to claim 3, as the closest reference, Anaya-Dufresne et al (US 6,144,528) shows a magnetic head slider as described above; **but fails to show that** the second surface is higher than the rail surfaces of the rails.
- With regard to claim 4, as the closest reference, Anaya-Dufresne et al (US 6,144,528) shows a magnetic head slider as described above; **but fails to show that** the third surface is higher than the rail surface of the side rails.
- With regard to claim 5, as the closest reference, Anaya-Dufresne et al (US 6,144,528) shows a magnetic head slider a magnetic head slider as described above; **but fails to show that** the second surface is higher than the rail surface of the rails, and the third surface is higher than the rail surfaces while the fourth surface is flush with the rail surfaces of the rails.
- With regard to claim 6, as the closest reference, Anaya-Dufresne et al (US 6,144,528) shows a magnetic head slider a magnetic head slider as described above; **but fails to show that** the height the third surface the trailing pad measured from the recess surface is set to be greater than 4  $\mu\text{m}$ .
- Applicant asserts that the present invention is to simultaneously satisfy the following requirements, that reducing vibration due contact of slider with flat medium surface having a decreased contact start flying height, reducing variation in flying height which caused by wavy unevenness, such as run-out, of a medium surface having long wavelength comparison with the length of the slider, and reducing variation in flying height which is caused by variation in atmospheric pressure around the slider (Specification, p. 3, lines 15-24).

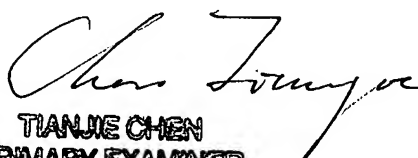
**Conclusion**

5. The prior art made of record in PTO-892 Form and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is 571-272-7570. The examiner can normally be reached on Flexible.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
TIANJIE CHEN  
PRIMARY EXAMINER